Name_____ Date_____

Bridges Unit Study Guide

Test on:_____

Part 1: Match each term with the correct definition

Compression: _____

Tension: _____

Shear Force: _____

Torsion: _____

Buckling: _____

Snapping: _____

A. Squeezing or Shortening

B. Twisting

C. Stretching

D. when the force of compression overcomes an object's ability to handle compression

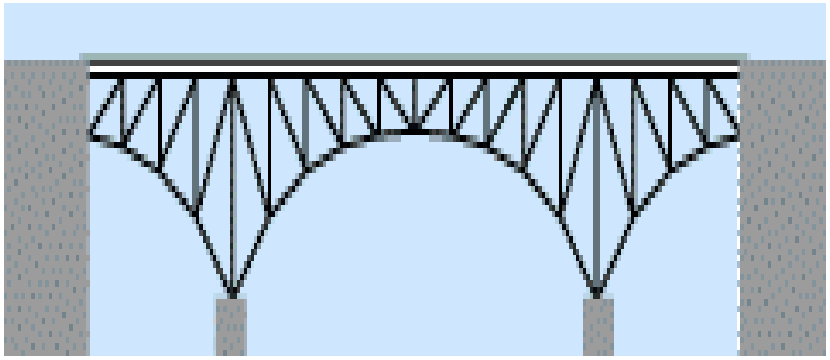
E. Sliding

F. what happens when the force of tension overcomes an object's ability to handle tension

Part 2: Bridge Diagram

Label the diagram below using the following terms:

Deck, Beam, Pier, Abutments



Part 3: Comparing and Contrasting

Fill in the tables for each bridge type.

Beam Bridges

Advantages (Pros)	Disadvantages (Cons)

Truss Bridges

Advantages (Pros)	Disadvantages (Cons)

Suspension Bridges

Advantages (Pros)	Disadvantages (Cons)

Arch Bridges

Advantages	Disadvantages

Answer the questions below using COMPLETE SENTENCES.

1. What are 3 reasons that bridges fail?

   1) _____

   2) _____

   3) _____

2. Who were the first great bridge builders?

   _____

3. What materials were used to make the first bridges?

   _____

4. What type of engineers is responsible for bridge design?

   _____

5. What materials do we use today to construct bridges?

   _____

Draw in line of best fit/trend line and write an analysis. What are the graphs showing? Which graph do you think has accurate data (2 are fictitious).